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ATTORNEY DOCKET NO. 10020057-1

OIPE IAP55 SEP 28 2006 PATENT & TRADEMARK OFFICE

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Brian D. Fiut et al.

Serial No.: 10/087,046 **Examiner: Michael Thier**

Filing Date: February 28, 2002 **Group Art Unit: 2617**

Title: SYSTEM AND METHD FOR REMOTE MONITORING OF BASESTATIONS

COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria VA 22313-1450

TRANSMITTAL OF APPEAL BRIEF

Sir:

Transmitted herewith is the Appeal Brief in this application with respect to the Notice of Appeal filed on July 28, 2006.

The fee for filing this Appeal Brief is (37 CFR 1.17(c)) **$500.00**.

(complete (a) or (b) as applicable)

The proceedings herein are for a patent application and the provisions of 37 CFR 1.136(a) apply.

☐ (a) Applicant petitions for an extension of time under 37 CFR 1.136 (fees: 37 CFR 1.17(a)(1)-(5)) for the total number of months checked below:

☐	one month	$ 120.00
☐	two months	$ 450.00
☐	three months	$1020.00
☐	four months	$1590.00

☐ The extension fee has already been filled in this application.

☒ (b) Applicant believes that no extension of term is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

Please charge to Deposit Account **50-1078** the sum of $500.00. At any time during the pendency of this application, please charge any fees required or credit any overpayment to Deposit Account **50-1078** pursuant to 37 CFR 1.25.

A duplicate copy of this transmittal letter is enclosed.

Respectfully submitted,

Brian D. Fiut et al.

By [signature]
Jody C. Bishop
Attorney/Agent for Applicant(s)

Reg. No. 44,034

Date: September 28, 2006

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☒ I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Date of Deposit: 9/28/2006 OR

☐ I hereby certify that this paper is being facsimile transmitted to the Patent and Trademark Office on the date shown below.

Date of Facsimile:

Typed Name: Gail L. Miller

Signature: Gail L. Miller

Agilent Technologies, Inc.
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Docket No.: 10020057-1
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Brian D. Fiut et al.

Application No.: 10/087,046 | Confirmation No.: 6491

Filed: February 28, 2002 | Art Unit: 2617

For: SYSTEM AND METHOD FOR REMOTE MONITORING OF BASESTATIONS | Examiner: M. Thier

APPEAL BRIEF

MS Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

As required under § 41.37(a), this brief is filed within two months of the Notice of Appeal filed in this case on July 28, 2006, and is in furtherance of said Notice of Appeal.

The fees required under § 41.20(b)(2) are dealt with in the accompanying TRANSMITTAL OF APPEAL BRIEF.

This brief contains items under the following headings as required by 37 C.F.R. § 41.37 and M.P.E.P. § 1206:

I. REAL PARTY IN INTEREST

The real party in interest for this appeal is:

Agilent Technologies, Inc.

II. RELATED APPEALS, INTERFERENCES, AND JUDICIAL PROCEEDINGS

There are no other appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

III. STATUS OF CLAIMS

A. Total Number of Claims in Application

There are 27 claims pending in application.

B. Current Status of Claims

1. Claims canceled: None
2. Claims withdrawn from consideration but not canceled: None
3. Claims pending: 1-27
4. Claims allowed: None
5. Claims rejected: 1-3 and 5-27
6. Claim objected to, but would be allowed if rewritten in independent form: 4

C. Claims On Appeal

The claims on appeal are claims 1-27.

IV. STATUS OF AMENDMENTS

Applicant did not file an Amendment After the Final Office Action, but instead filed a Notice of Appeal which this brief supports. Therefore, the claims on appeal are those

rejected in the Final Office Action. A complete listing of the claims is provided in the Claims Appendix hereto.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The following provides a concise explanation of the subject matter defined in each of the separately argued claims involved in the appeal, referring to the specification by page and line number and to the drawings by reference characters, as required by 37 C.F.R. § 41.37(c)(1)(v). Each element of the claims is identified by a corresponding reference to the specification and drawings where applicable. It should be noted that the citation to passages in the specification and drawings for each claim element does not imply that the limitations from the specification and drawings should be read into the corresponding claim element.

According to one claimed embodiment, such as that of independent claim 1, a method comprises acquiring at a monitoring probe (e.g., monitoring probe 201A of FIG. 2) arranged local to a basestation (e.g., basestation 102A of FIG. 2) measurement data for at least one network link parameter of said basestation (*see* paragraph 0062), measurement data for at least one wireless link parameter of said basestation (*see* paragraphs 0059 – 0060), and measurement data for at least one operational parameter of said basestation (*see* paragraph 0063). The method further comprises formatting said measurement data for said at least one network link parameter, said measurement data for said at least one wireless link parameter, and said measurement data for said at least one operational parameter into a uniform format (*see* paragraphs 0066 – 0069). The method further comprises communicating, in said uniform format, said measurement data for said at least one network link parameter, said measurement data for said at least one wireless link parameter, and said measurement data for said at least one operational parameter from said monitoring probe to a processor-based device arranged remote from said basestation (*see* paragraph 0074).

In certain embodiments, such as that of dependent claim 4, the at least one T1 measurement comprises at least one type of measurement data selected from the group consisting of: Network Bipolar Violations, Network Bipolar Errored Seconds, Network Severely Errored Seconds, Network Unavailable Seconds, Network Excess Zero Seconds, Network Frame Errors, Network Errored Seconds, Network Path Severely Errored Seconds, Network Path Unavailable Seconds, Network Signal Loss, Network Frame Loss, Network

Bipolar with eight zero substitution (B8ZS) Detect, Site Bipolar Violations, Site Bipolar Errored Seconds, Site Severely Errored Seconds, Site Unavailable Seconds, Site Excess Zero Seconds, Site Frame Errors, Site Errored Seconds, Site Path Severely Errored Seconds, Site Path Unavailable Seconds, Site Signal Loss, Site Frame Loss, Site B8ZS Detect, and Clock Slips (*see* paragraph 0048).

In certain embodiments, such as that of dependent claim 5, the measurement data for at least one wireless link parameter comprises at least one type of measurement selected from the group consisting of: at least one antenna measurement, at least one antenna feedline measurement, at least one transmitter measurement, at least one receiver measurement, and at least one interference measurement (*see* paragraphs 0041 – 0046).

In certain embodiments, such as that of dependent claim 6, the at least one antenna measurement comprises at least one type of measurement data selected from the group consisting of: swept return loss measurement, and distance-to-fault measurement (*see* paragraph 0080).

In certain embodiments, such as that of dependent claim 7, the at least one transmitter measurement comprises at least one type of measurement data selected from the group consisting of: output power measurement, signal quality measurement, and traffic measurement (*see* paragraph 0080).

In certain embodiments, such as that of dependent claim 9, the measurement data for at least one wireless link parameter includes at least one measurement for a receiving antenna of said basestation (*see* paragraph 0077).

According to another claimed embodiment, such as that of independent claim 12, a basestation monitoring system comprises (e.g., monitoring probe 201A of FIG. 2) arranged local to a basestation (e.g., basestation 102A of FIG. 2), said monitoring probe operable to acquire measurement data for at least one network link parameter of said basestation (*see* paragraph 0062), at least one wireless link parameter of said basestation (*see* paragraphs 0059 – 0060), and at least one operational parameter of said basestation (*see* paragraph 0063) and format the acquired measurement data into a uniform format (*see* paragraphs 0066 – 0069), wherein said monitoring probe comprises an interface to a communication network (*see*

paragraph 0058). The system further comprises a remote processor-based device arranged remote from said basestation (e.g., RBMS 202 of FIG. 2, *see* paragraph 0033), wherein said remote processor-based device comprises an interface to said communication network (*see* paragraph 0033).

In certain embodiments, such as that of dependent claim 19, measurement data for at least one wireless link parameter comprises at least one type of measurement selected from the group consisting of: at least one antenna measurement, at least one antenna feedline measurement, at least one transmitter measurement, at least one receiver measurement, and at least one interference measurement (*see* paragraphs 0041 – 0046).

According to another claimed embodiment, such as that of independent claim 21, a basestation monitoring probe comprises at least one module for acquiring measurement data for at least one network link parameter of a basestation (e.g., Module 502 in FIG. 5). The system further comprises at least one module for acquiring measurement data for at least one wireless link parameter of said basestation (e.g., Module 501 in FIG. 5). The system further comprises at least one module for acquiring measurement data for at least one operational parameter of said basestation (e.g., Module 503 in FIG. 5). The system further comprises a controller for formatting the measurement data acquired for said at least one network link parameter, said at least one wireless link parameter, and said at least one operational parameter into a uniform format (e.g., Controller 401 in FIG. 4, *see* paragraph 0071). The system further comprises an interface to a communication network for communicating, in said uniform format, at least a portion of the acquired measurement data to a remote processor-based system (*see* paragraph 0058).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1-3, 12-13, 18, and 21-22 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Application Publication No. 2001/0001268 to Menon et al (hereinafter "*Menon*") in view of U.S. Patent No. 5,907,800 to Johnson et al (hereinafter "*Johnson*").

Claims 5-7, 9, 19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Menon* in view of *Johnson* in further view of U.S. Patent No. 5,489,914 to Breed (hereinafter "*Breed*").

Claims 8 and 20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Menon* in view of *Johnson* in further view of U.S. Patent No. 4,823,280 to Mailandt et al (hereinafter "*Mailandt*").

Claims 10-11 and 16-17 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Menon* in view of *Johnson* in further view of U.S. Patent No. 6,385,609 to Barshefsky et al (hereinafter "*Barshefsky*").

Claims 14-15, 23-24 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Menon* in view of *Johnson* in further view of U.S. Application Publication No. 2002/0147936 to Wiczer (hereinafter "*Wiczer*").

Claims 25-27 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Menon* in view of *Johnson* in further view of U.S. Application Publication No. 2005/0233759 to Anvekar et al (hereinafter "*Anvekar*").

VII. ARGUMENT

Appellant respectfully traverses the outstanding rejections of the pending claims, and request that the Board reverse the outstanding rejections in light of the remarks contained herein. The claims do not stand or fall together. Instead, Appellant presents separate arguments for various independent and dependent claims. Each of these arguments is separately argued below and presented with separate headings and sub-headings as required by 37 C.F.R. § 41.37(c)(1)(vii).

A. Rejections Under 35 U.S.C. § 103(a)

Claims 1-3, 12-13, 18, and 21-22 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Menon* in view of *Johnson*.

Claims 5-7, 9, 19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Menon* in view of *Johnson* in further view of *Breed.*

Claims 8 and 20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Menon* in view of *Johnson* in further view of *Mailandt.*

Claims 10-11 and 16-17 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Menon* in view of *Johnson* in further view of *Barshefsky.*

Claims 14-15, 23-24 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Menon* in view of *Johnson* in further view of *Wiczer.*

Claims 25-27 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Menon* in view of *Johnson* in further view of *Anvekar.* Applicant traverses these rejections as provided below.

In order to establish obviousness under 35 U.S.C. § 103(a), three criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the references or combine reference teachings. Second, there must be a reasonable expectation of success. Third, the applied art must teach or suggest all the claim limitations. M.P.E.P. § 2143.03. Appellant asserts that the rejections do not satisfy these criteria, as discussed below.

1. Rejections over *Menon* in view of *Johnson*

Independent Claim 1 and Dependent Claims 2-3

Independent claim 1 recites, in part, "communicating, in said uniform format, said measurement data for said at least one network link parameter, said measurement data for said at least one wireless link parameter, and said measurement data for said at least one operational parameter from said monitoring probe to a processor-based device arranged remote from said basestation." Neither *Menon* nor *Johnson* teaches or suggests at least this aspect of claim 1. Further, even if *Johnson* teaches formatting data in a uniform format (and as is explained below Appellant asserts that *Johnson* does not teach formatting as in claim 1), one skilled in the art would not combine *Menon* and *Johnson* in a manner to provide

communicating measurement data formatted in a uniform format because any such formatting of *Johnson* is performed only *after* the data has been communicated.

Neither *Menon* nor *Johnson* teaches communicating data in a uniform format. The Final Office Action correctly states that *Menon* teaches "... communicating the data from the monitoring probe to a processor-based device arranged remote from the base station" and cites to "wireless access system 10 or 101" as the "processor-based device arranged remote from the base station." *See* Final Office Action page 2. However, claim 1 does not merely require "communicating the data," but recites communication of the data "in said uniform format." The Final Office Action subsequently concedes that "Menon does not clearly teach formatting the measurement data ... in the uniform format," so *Menon* could not possibly teach or suggest communicating the data "in said uniform format". *See* Office Action at page 3.

The Final Office Action does not rely upon *Johnson* as teaching or suggesting communicating the data "in said uniform format," nor does *Johnson* do so. *Johnson* appears to disclose receiving data from cell phone network entities such as Mobile Switching Center 101 and formatting the received data, once received at subscriber termination prevention system 107. *See Johnson* at Figure 2; column 6, lines 57-61; column 7, lines 16-18. Thus, *Johnson* appears to disclose communicating data from Mobile Switching Center 101 in disparate formats and then formatting the data received in a uniform format once received and then processing the formatted data at the same receiving location. *See Johnson* at column 7, lines 31-34; column 6, lines 57-61 (explaining that after the interface 111 translates records into CCF format, the records are passed to the analysis section 112 and that the interface 111 and analysis section 113 are implemented as software components running within a single computer of system 107).

If one skilled in the art combined the teachings of *Johnson* with the teachings of *Menon*, one would not be motivated to modify *Menon* such that the base station 30 or 101 formats measurement data in a uniform format prior to reporting the measurement data to wireless access system 10 or 100, but rather would, in view of *Johnson's* teaching, format the measurements received for base station 30 or 101 after they have been communicated.

As discussed above, *Johnson* teaches receiving call record data (not measurement data as recited in claim 1) from cellular network entities—Mobile Switching Center 101—and formatting and processing the data at a central system—subscriber termination prevention system 107, once received. *See Johnson* at Figure 2; column 6, lines 57-61; column 7, lines 16-18. *Menon* teaches transmitting measurement data from cellular network entities—base stations 30 or 101—and processing the measurement data at a central system—wireless access system 10 or 100. *See Menon* at page 15, paragraph 0228. Thus, if one skilled in the art were to consider the teachings of *Johnson* and *Menon*, one would be led to provide a system in which the formatting of measurement data was performed at a central system *after* the measurement data had been communicated from the base stations 30 or 101. Because such a system would not format the measurement data until *after* communicating the data, the consideration of *Menon* and *Johnson* fails to teach or suggest "communicating, in said uniform format, ... measurement data" as recited in claim 1.

Additionally, independent claim 1 recites, in part, "formatting said measurement data for said at least one network link parameter, said measurement data for said at least one wireless link parameter, and said measurement data for said at least one operational parameter into a uniform format." Neither *Menon* nor *Johnson* teaches or suggests at least this aspect of claim 1. The Final Office Action correctly states that *Menon* "doest not clearly teach" this limitation of claim 1. *See* Final Office Action at page 3. The Final Office Action also correctly states that *Johnson* teaches "formatting data from a variety of formats into a uniform format (e.g. converting from CDR, CIBER and other formats to CCF format ...." *See id.* However, as discussed further below, while *Johnson* appears to disclose converting call records stored in various formats to a single format, *Johnson* does not teach or suggest formatting measurement data for at least one network link parameter, measurement data for at least one wireless link parameter, and measurement data for said at least one operational parameter into a uniform formats as recited in claim 1.

Johnson appears to merely disclose converting one type of data – wireless call records – stored in various formats into a single format. The Final Office Action asserts that *Johnson* teaches "formatting data from a variety of formats into a uniform format (e.g. converting from CDR, CIBER and other formats to CCF format ...." *See* Final Office Action at page 3. "CDR" is a term of art that is well known to those skilled in the art at the time of the

invention. The term is defined, for example, in U.S. Patent 5,615,408 to Johnson et al[1] (hereinafter the "'408 patent"), a copy of which is included as Exhibit A in the Evidence Appendix, as follows:

> Each MSC handling the call creates a separate Call Detail Record (CDR) which contains several items of information describing the call and the subscriber. For example, the CDR contains the following call information items: MIN, MSN, number called, call duration, call origination date and time, country call, information identifying the MSC, etc.

'408 patent at col 6 lns 49-52. Similarly, CIBER is a term of art known to those skilled in the art at the time of the invention. The term is defined in NEWTON'S TELECOM DICTIONARY, a copy of which is included as Exhibit B in the Evidence Appendix, as follows: "CIBER: Cellular Intercarrier Billing Exchange Record. A billing record format used between cellular carriers."

Thus, *Johnson* appears to disclose converting a single type of data – call records – stored in various formats to a single format, but in no way teaches or suggests formatting disparate *types* of records (i.e., measurement data for said at least one network link parameter, measurement data for said at least one wireless link parameter, and measurement data for at least one operational parameter as recited in claim 1) into a uniform format. *See Johnson*, column 7 line 1 – column 8 line 24. In contrast, claim 1 recites formatting measurements from three different *types* of information – measurement data for at least one network link parameter, measurement data for at least one wireless link parameter, and measurement data for at least one operational parameter – into a uniform format. The formatting of data from CDR, and CIBER to CCF in *Johnson* does not teach or suggest formatting measurement data of the 3 types recited in claim 1 into a uniform format.

In view of the above, the combination of *Menon* and *Johnson* does not teach or suggest all the elements of claim 1, and thus claim 1 is not unpatentable under 35 U.S.C. §

[1] U.S. Patent No. 5,907,800 (the *Johnson* patent) and U.S. Patent No. 5,615,408 (the '408 patent) have different inventive entities, but share a common inventor, Eric. A. Johnson of Longmont, Colorado. The '408 patent appears to disclose a fraud detection system 107 accepting CIBER data from a Roamer tape 109 and CDR data from a Mobile Switching Center 101. *See* '408 patent Figure 1b (compare to Figure 2 of the *Johnson* patent teaching a subscriber termination prevention system 107 accepting CIBER data from a Roamer tape 109 and CDR data from a Mobile Switching Center 101). The '408 patent is cited on the face of the *Johnson* patent.

103 over *Menon* in view of *Johnson*. Therefore, Appellants respectfully requests that this rejection of claim 1 be overturned.

Claims 2-3 each depend either directly or indirectly from independent claim 1, and are thus likewise believed to be allowable at least based on their dependency from claim 1 for the reasons discussed above. Accordingly, Appellant respectfully requests that the rejection of claims 2-3 also be overturned.

Independent Claim 12 and Dependent Claims 13 and 18

Independent claim 12 recites, in part: "a monitoring probe arranged local to a basestation, said monitoring probe operable to acquire measurement data for at least one network link parameter of said basestation, at least one wireless link parameter of said basestation, and at least one operational parameter of said basestation and format the acquired measurement data into a uniform format." Neither *Menon* nor *Johnson* teaches or suggests at least this aspect of claim 12. The Final Office Action correctly states that *Menon* "doest not clearly teach" any hardware operable to format the message data. *See* Final Office Action at page 3. Further, *Johnson* does not teach or suggest "a monitoring probe arranged local to a base station operable to ... format the acquired measurement data into a uniform format" because *Johnson* only teaches formatting at a centralized processing location, not at a monitoring probe, and *Johnson* does not teach formatting different *types* of data into a common format as recited in claim 12, as discussed above with claim 1.

In view of the above, the combination of *Menon* and *Johnson* does not teach or suggest all the elements of claim 12, and thus claim 12 is not unpatentable under 35 U.S.C. § 103 over *Menon* in view of *Johnson*. Therefore, Appellants respectfully requests that this rejection of claim 12 be overturned.

Claims 13 and 18 each depend either directly or indirectly from independent claim 12, and are thus likewise believed to be allowable at least based on their dependency from claim 12 for the reasons discussed above. Accordingly, Appellant respectfully requests that the rejections of claims 13 and 18 also be overturned.

Independent Claim 21 and Dependent Claim 22

Independent Claim 21 recites, in part:

> A basestation monitoring probe comprising:
> ...
> a controller for formatting the measurement data acquired for said at least one network link parameter, said at least one wireless link parameter, and said at least one operational parameter into a uniform format; and
> an interface to a communication network for communicating, in said uniform format, at least a portion of the acquired measurement data to a remote processor-based system.

As discussed above with regard to claims 1 and 12, neither *Menon* nor *Johnson* teaches or suggests at least these aspects of claim 21. The Final Office Action correctly states that *Menon* "doest not clearly teach" any hardware for formatting the message data. *See* Final Office Action at page 3. Further, *Johnson* does not teach or suggest any equipment within a basestation monitoring probe for formatting the measurement data because *Johnson* appears to instead disclose formatting at a centralized processing location, not at a monitoring probe, and *Johnson* does not teach formatting different types of data into a common format as recited claimed in claim 21, such as discussed above with claim 1.

Additionally, as discussed above with regard to claims 1 and 12, neither *Menon* nor *Johnson* teaches hardware at a basestation probe for communicating "in said uniform format" the measurement data as *Menon* does not teach any formatting and *Johnson* appears to disclose only formatting after the data has already been communicated from the cellular infrastructure.

In view of the above, the combination of *Menon* and *Johnson* does not teach or suggest all the elements of claim 21, and thus claim 21 is not unpatentable under 35 U.S.C. § 103 over *Menon* in view of *Johnson*. Therefore, Appellants respectfully requests that this rejection of claim 21 be overturned.

Claim 22 depends directly from independent claim 21, and is thus likewise believed to be allowable at least based on its dependency from claim 1 for the reasons discussed above. Accordingly, Appellant respectfully requests that the rejection of claim 22 also be overturned.

2. Rejections over *Menon* in view of *Johnson* in further view of *Breed*

Dependent Claims 5-7 and 9

Claims 5-7 and 9 each depend either directly or indirectly from independent claim 1. As discussed above, neither *Menon* nor *Johnson* teaches or suggests at least "communicating, in said uniform format, said measurement data for said at least one network link parameter, said measurement data for said at least one wireless link parameter, and said measurement data for said at least one operational parameter from said monitoring probe to a processor-based device arranged remote from said basestation" or "formatting said measurement data for said at least one network link parameter, said measurement data for said at least one wireless link parameter, and said measurement data for said at least one operational parameter into a uniform format." The Final Office Action has not relied on *Breed* to teach or suggest these limitations, nor does *Breed* do so. Thus, claims 5-7 and 9 are believed to be allowable at least based on their dependency from claim 1 for the reasons discussed above.

Finally, the Final Office Action has not provided sufficient motivation to combine *Breed* with *Menon* and *Johnson*, nor does any such motivation exist. To establish a prima facie case of obviousness, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. *See* MPEP § 2142. The Final Office Action argues that one of ordinary skill in the art would be motivated to utilize the teachings of *Breed* "so that multiple frequency operation is achieved without the use of reactive components or large structures." Office Action at pages 3-4. As a preliminary matter, this motivation was taken from *Breed* itself and is *not* touted by *Breed* as a motivation to use swept return loss measurements, but rather is a motivation to "construct dipole or monopole antennas, or elements of an antenna array, which have dipole- or monopole-like behavior at multiple frequencies." *See Breed* column 1 lines 56-64. *Breed* appears to teach the use of swept return loss measurements as one of several measurements performed on test antennas "constructed to verify the computer models" of the novel antenna which the subject of *Breed*. *See Breed* column 6 line 65 – column 7 line 17. Further, even if the Final Office Action had properly identified a benefit of using swept return loss measurements, one skilled in the art undertaking the task of building base station test equipment (as the Final Office Action has purported that *Menon* and *Johnson* combine to teach) would not be motivated

achieve multiple frequency operation without the use of reactive components or large structure since the claimed invention has absolutely nothing to do with altering the operation of the base station equipment itself. Thus, the Final Office Action has not provided sufficient motivation to combine, nor does any such motivation exist.

Accordingly, Appellant respectfully requests that the rejections of claims 5-7 and 9 also be overturned.

Dependent Claim 19

Claim 19 depends directly from independent claim 12. As discussed above, neither *Menon* nor *Johnson* teaches or suggests at least "a monitoring probe arranged local to a basestation, said monitoring probe operable to acquire measurement data for at least one network link parameter of said basestation, at least one wireless link parameter of said basestation, and at least one operational parameter of said basestation and format the acquired measurement data into a uniform format." The Final Office Action has not relied on *Breed* to teach or suggest these limitations, nor does *Breed* do so. Thus, claim 19 is believed to be allowable at least based on its dependency from claim 12 for the reasons discussed above.

Additionally, as discussed above with regards to dependent claims 5-7 and 9, sufficient motivation is not provided for combining *Breed* with *Menon* and *Johnson*. Accordingly, Appellant respectfully requests that the rejection of claim 19 also be overturned.

3. Rejections over *Menon* in view of *Johnson* in further view of *Mallandt*

Dependent Claim 8

Claim 8 depends directly from independent claim 1. As discussed above, neither *Menon* nor *Johnson* teaches or suggests at least "communicating, in said uniform format, said measurement data for said at least one network link parameter, said measurement data for said at least one wireless link parameter, and said measurement data for said at least one operational parameter from said monitoring probe to a processor-based device arranged remote from said basestation" or "formatting said measurement data for said at least one network link parameter, said measurement data for said at least one wireless link parameter, and said measurement data for said at least one operational parameter into a uniform format."

The Final Office Action has not relied on *Mallandt* to teach or suggest these limitations, nor does *Mallandt* do so. Thus, claim 8 is believed to be allowable at least based on its dependency from claim 1 for the reasons discussed above. Accordingly, Appellant respectfully requests that the rejection of claim 8 also be overturned.

Dependent Claim 20

Claim 20 depends directly from independent claim 12. As discussed above, neither *Menon* nor *Johnson* teaches or suggests at least "a monitoring probe arranged local to a basestation, said monitoring probe operable to acquire measurement data for at least one network link parameter of said basestation, at least one wireless link parameter of said basestation, and at least one operational parameter of said basestation and format the acquired measurement data into a uniform format." The Final Office Action has not relied on *Mallandt* to teach or suggest these limitations, nor does *Mallandt* do so. Thus, claim 20 is believed to be allowable at least based on its dependency from claim 12 for the reasons discussed above. Accordingly, Appellant respectfully requests that the rejection of claim 20 also be overturned.

4. Rejections over *Menon* in view of *Johnson* in further view of *Barshefsky*

Dependent Claims 10-11

Claims 10-11 each depend either directly or indirectly from independent claim 1. As discussed above, neither *Menon* nor *Johnson* teaches or suggests at least "communicating, in said uniform format, said measurement data for said at least one network link parameter, said measurement data for said at least one wireless link parameter, and said measurement data for said at least one operational parameter from said monitoring probe to a processor-based device arranged remote from said basestation" or "formatting said measurement data for said at least one network link parameter, said measurement data for said at least one wireless link parameter, and said measurement data for said at least one operational parameter into a uniform format." The Final Office Action has not relied on *Barshefsky* to teach or suggest these limitations, nor does *Barshefsky* do so. Thus, claims 10-11 are believed to be allowable at least based on their dependency from claim 1 for the reasons discussed above.

Accordingly, Appellant respectfully requests that the rejections of claims 10-11 also be overturned.

Dependent Claims 16-17

Claims 16-17 each depend either directly or indirectly from independent claim 12. As discussed above, neither *Menon* nor *Johnson* teaches or suggests at least "a monitoring probe arranged local to a basestation, said monitoring probe operable to acquire measurement data for at least one network link parameter of said basestation, at least one wireless link parameter of said basestation, and at least one operational parameter of said basestation and format the acquired measurement data into a uniform format." The Final Office Action has not relied on *Barshefsky* to teach or suggest these limitations, nor does *Barshefsky* do so. Thus, claims 16-17 are believed to be allowable at least based on their dependency from claim 12 for the reasons discussed above. Accordingly, Appellants respectfully requests that the rejections of claims 16-17 also be overturned.

5. Rejections over *Menon* in view of *Johnson* in further view of *Wiczer*

Dependent Claims 14-15

Claims 16-17 each depend either directly or indirectly from independent claim 12. As discussed above, neither *Menon* nor *Johnson* teaches or suggests at least "a monitoring probe arranged local to a basestation, said monitoring probe operable to acquire measurement data for at least one network link parameter of said basestation, at least one wireless link parameter of said basestation, and at least one operational parameter of said basestation and format the acquired measurement data into a uniform format." The Final Office Action has not relied on *Wiczer* to teach or suggest these limitations, nor does *Wiczer* do so. Thus, claims 16-17 are believed to be allowable at least based on their dependency from claim 12 for the reasons discussed above. Accordingly, Appellant respectfully requests that the rejection of claims 16-17 also be overturned.

Dependent Claims 23-24

Claims 23-24 each depend either directly or indirectly from independent claim 21. As discussed above, neither *Menon* nor *Johnson* teaches or suggests at least:

> A basestation monitoring probe comprising:
> ...
> a controller for formatting the measurement data acquired for said at least one network link parameter, said at least one wireless link parameter, and said at least one operational parameter into a uniform format; and
> an interface to a communication network for communicating, in said uniform format, at least a portion of the acquired measurement data to a remote processor-based system.

The Office Action has not relied on *Wiczer* to teach or suggest these limitations, nor does *Wiczer* do so. Thus, claims 23-24 are believed to be allowable at least based on their dependency from claim 21 for the reasons discussed above. Accordingly, Appellant respectfully requests that the rejections of claims 23-24 also be overturned.

6. Rejections over *Menon* in view of *Johnson* in further view of *Anvekar*

Dependent Claims 25-27

Claims 25-27 each depend either directly or indirectly from independent claim 21. As discussed above, neither *Menon* nor *Johnson* teaches or suggests at least:

> A basestation monitoring probe comprising:
> ...
> a controller for formatting the measurement data acquired for said at least one network link parameter, said at least one wireless link parameter, and said at least one operational parameter into a uniform format; and
> an interface to a communication network for communicating, in said uniform format, at least a portion of the acquired measurement data to a remote processor-based system.

The Final Office Action has not relied on *Anvekar* to teach or suggest these limitations, nor does *Anvekar* do so. Thus, claims 25-27 are believed to be allowable at least based on their dependency from claim 21 for the reasons discussed above. Accordingly, Appellant respectfully requests that the rejection of claims 25-27 also be overturned.

Conclusion

In view of the above, Appellant requests that the board overturn the outstanding rejections of claims 1-27. Attached hereto are a Claims Appendix, Evidence Appendix, and Related Proceedings Appendix. As noted in the attached Evidence Appendix, Appellant submits herewith, for the Board's convenience, U.S. Patent No. 5,615,408 as Exhibit A, and

the definition of CIBER provided by Newton's Telecom Dictionary as Exhibit B. No further evidence pursuant to §§ 1.130, 1.131, or 1.132 or entered by or relied upon by the examiner is being submitted. Also, as noted by the Related Proceedings Appendix, no related proceedings are referenced in II above, and thus no copies of decisions in related proceedings are provided.

The required fee for this response is enclosed. If any additional fee is due, please charge Deposit Account No. 50-1078, under order No. 1002057-1 from which the undersigned is authorized to draw.

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Respectfully submitted,

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VIII. CLAIMS APPENDIX

Claims Involved in the Appeal of Application Serial No. 10/087,046

1. A method for monitoring a basestation in a wireless communication network from a location remote to said basestation, said method comprising:

acquiring at a monitoring probe arranged local to a basestation measurement data for at least one network link parameter of said basestation, measurement data for at least one wireless link parameter of said basestation, and measurement data for at least one operational parameter of said basestation;

formatting said measurement data for said at least one network link parameter, said measurement data for said at least one wireless link parameter, and said measurement data for said at least one operational parameter into a uniform format; and

communicating, in said uniform format, said measurement data for said at least one network link parameter, said measurement data for said at least one wireless link parameter, and said measurement data for said at least one operational parameter from said monitoring probe to a processor-based device arranged remote from said basestation.

2. The method of claim 1 wherein said monitoring probe is communicatively coupled to a communication network and wherein said communicating step further comprises said monitoring probe communicating said measurement data to said processor-based device via said communication network.

3. The method of claim 1 wherein said measurement data for at least one network link parameter comprises at least one type of measurement selected from the group consisting of: at least one T1 measurement, and at least one E1 measurement.

4. The method of claim 3 wherein said at least one T1 measurement comprises at least one type of measurement data selected from the group consisting of: Network Bipolar Violations, Network Bipolar Errored Seconds, Network Severely Errored Seconds, Network Unavailable Seconds, Network Excess Zero Seconds, Network Frame Errors, Network Errored Seconds, Network Path Severely Errored Seconds, Network Path Unavailable Seconds, Network Signal Loss, Network Frame Loss, Network Bipolar with eight zero substitution (B8ZS) Detect, Site Bipolar Violations, Site Bipolar Errored Seconds, Site Severely Errored Seconds, Site Unavailable Seconds, Site Excess Zero Seconds, Site Frame Errors, Site Errored Seconds, Site Path Severely Errored Seconds, Site Path Unavailable Seconds, Site Signal Loss, Site Frame Loss, Site B8ZS Detect, and Clock Slips.

5. The method of claim 1 wherein said measurement data for at least one wireless link parameter comprises at least one type of measurement selected from the group consisting of: at least one antenna measurement, at least one antenna feedline measurement, at least one transmitter measurement, at least one receiver measurement, and at least one interference measurement.

6. The method of claim 5 wherein said at least one antenna measurement comprises at least one type of measurement data selected from the group consisting of: swept return loss measurement, and distance-to-fault measurement.

7. The method of claim 5 wherein said at least one transmitter measurement comprises at least one type of measurement data selected from the group consisting of: output power measurement, signal quality measurement, and traffic measurement.

8. The method of claim 1 wherein said measurement data for at least one operational parameter comprises at least one type of measurement selected from the group consisting of: temperature measurement, heater alarm, air conditioner alarm, security system alarm, tower light failure alarm, and battery monitor alarm.

9. The method of claim 1 wherein said measurement data for at least one wireless link parameter includes at least one measurement for a receiving antenna of said basestation.

10. The method of claim 1 further comprising:

using a common user interface for accessing said measurement data received by said processor-based device.

11. The method of claim 10 wherein said common user interface comprises a web browser.

12. A basestation monitoring system comprising:

a monitoring probe arranged local to a basestation, said monitoring probe operable to acquire measurement data for at least one network link parameter of said basestation, at least one wireless link parameter of said basestation, and at least one operational parameter of said basestation and format the acquired measurement data into a uniform format, wherein said monitoring probe comprises an interface to a communication network; and

a remote processor-based device arranged remote from said basestation, wherein said remote processor-based device comprises an interface to said communication network.

13. The basestation monitoring system of claim 12 wherein said monitoring probe comprises a controller operable to communicate, in said uniform format, said measurement data for said at least one network link parameter, at least one wireless link parameter, and at least one operational parameter of said basestation to said remote processor-based device via said communication network.

14. The basestation monitoring system of claim 13 wherein said monitoring probe comprises a Smart Transducer Interface Module (STIM) that is communicatively coupled to a Network Capable Application Processor (NCAP).

15. The basestation monitoring system of claim 14 wherein said STIM is capable of acquiring at least one of said measurement data in accordance with IEEE 1451.1 standard and communicate said at least one of said measurement data to said NCAP in accordance with IEEE 1451.2 standard.

16. The basestation monitoring system of claim 12 further comprising:

a common user interface for accessing said measurement data received by said remote processor-based device.

17. The basestation monitoring system of claim 16 wherein said common user interface comprises a web browser.

18. The basestation monitoring system of claim 12 wherein said measurement data for at least one network link parameter comprises at least one type of measurement selected from the group consisting of: at least one T1 measurement, and at least one E1 measurement.

19. The basestation monitoring system of claim 12 wherein said measurement data for at least one wireless link parameter comprises at least one type of measurement selected from the group consisting of: at least one antenna measurement, at least one antenna feedline measurement, at least one transmitter measurement, at least one receiver measurement, and at least one interference measurement.

20. The basestation monitoring system of claim 12 wherein said measurement data for at least one operational parameter comprises at least one type of measurement selected from the group consisting of: temperature measurement, heater alarm, air conditioner alarm, security system alarm, tower light failure alarm, and battery monitor alarm.

21. A basestation monitoring probe comprising:

at least one module for acquiring measurement data for at least one network link parameter of a basestation;

at least one module for acquiring measurement data for at least one wireless link parameter of said basestation;

at least one module for acquiring measurement data for at least one operational parameter of said basestation;

a controller for formatting the measurement data acquired for said at least one network link parameter, said at least one wireless link parameter, and said at least one operational parameter into a uniform format; and

an interface to a communication network for communicating, in said uniform format, at least a portion of the acquired measurement data to a remote processor-based system.

22. The basestation monitoring probe of claim 21 wherein said controller is further operable to communicate, in said uniform format, said measurement data for said at least one network link parameter, at least one wireless link parameter, and at least one operational parameter of said basestation to said remote processor-based device via said communication network.

23. The basestation monitoring probe of claim 21 wherein said at least one module for acquiring measurement data comprises a Smart Transducer Interface Module (STIM), and wherein said controller comprises a Network Capable Application Processor (NCAP) that is communicatively coupled to said STIM.

24. The basestation monitoring probe of claim 23 wherein said STIM is capable of acquiring at least one of said measurement data in accordance with IEEE 1451.1 standard and communicate said at least one of said measurement data to said NCAP in accordance with IEEE 1451.2 standard.

25. The method of claim 1 wherein said uniform format is a mark-up language readable with a web browser.

26. The basestation monitoring system of claim 12 wherein said uniform format is a mark-up language readable with a web browser.

27. The basestation monitoring probe of claim 21 wherein said uniform format is a mark-up language readable with a web browser.

IX. EVIDENCE APPENDIX

Appellant submits herewith, for the Board's convenience, U.S. Patent No. 5,615,408 as Exhibit A, and the definition of CIBER provided by Newton's Telecom Dictionary as Exhibit B. No further evidence pursuant to §§ 1.130, 1.131, or 1.132 or entered by or relied upon by the examiner is being submitted.

X. RELATED PROCEEDINGS APPENDIX

No related proceedings are referenced in II above, and thus no copies of decisions in related proceedings are provided.

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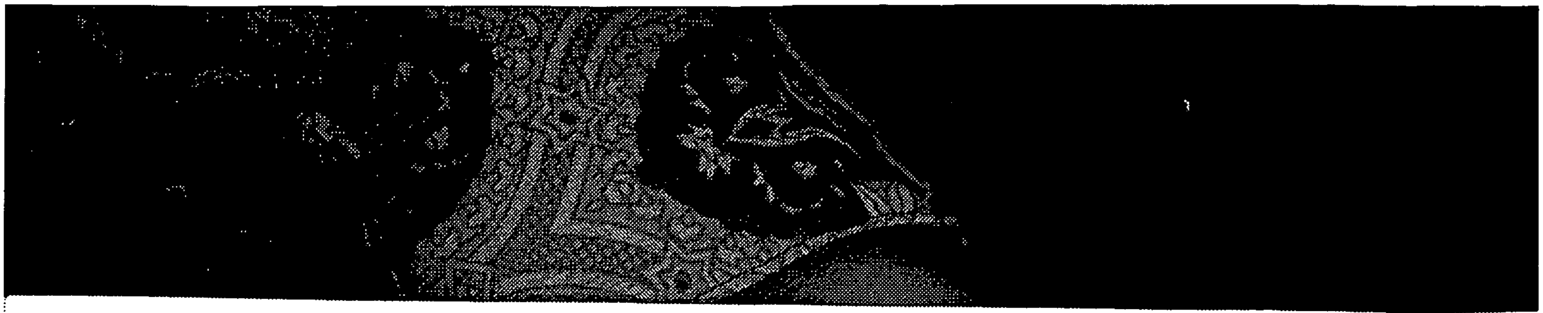

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fibers, caused by the fact that different wavelengths of light travel at different velocities in glass. A prism is a demonstration of this phenomenon, for example. Optical fibers can be designed to control the dispersion profile versus wavelength. The amount of chromatic dispersion is a measure of the relative velocity of light (photons) in adjacent wavelengths in the fiber. High dispersion means that light (photons) at a given wavelength is traveling down the fiber at a very different speed than light in a wavelength right next door. Low dispersion means that light in adjacent wavelengths is traveling down the fiber at about the same velocity. It is important in multi-wavelength systems to have enough dispersion to break up cross wavelength interference problems but not so much dispersion that high bit rates become costly to transmit. Some fibers are designed to have nonzero-dispersion, i.e. they must have just the right amount of dispersion to balance these effects.

The uniformity of dispersion relates to how the amount of dispersion varies across a range of wavelengths. If you plotted the dispersion value at each wavelength across a range of wavelengths and they all had exactly the same amount of dispersion, the slope of the plotted line would be zero. To get optimum performance and cost in multi-wavelength transmission systems, it is important that the amount of dispersion not vary too much across the different wavelengths used by the system.

Chromatic dispersion is one of the mechanisms that limits the bandwidth of optical fibers by producing pulse spreading because of the various colors of light traveling in the fiber. Different wavelengths of light travel at different speeds. Since most optical sources emit light containing a range of wavelengths, each of these wavelengths arrive at different times and thereby cause the transmitted pulse to spread as it travels down the fiber.

Chromatic dispersion is the sum of material and waveguide dispersion. Dispersion can be positive or negative because it measures the change in the refractive index with wavelength. Thus, the total chromatic dispersion can actually be zero (really close to zero). For example, step-index single-mode fibers have zero dispersion at 1300nm, almost exactly at the same wavelength where the optical loss of the fiber is at a minimum. This is what allows single-mode fibers to have low loss and high bandwidth. See also PMD (Polarization Mode Dispersion).

Chrominance The color portion of the video signal. Chrominance includes hue and saturation information but not brightness. Low chroma means the color picture looks pale or washed out; high chroma means the color is too intense, with a tendency to bleed into surrounding areas. Black, gray and white have a chrominance value of 0. Brightness is referred to as luminance.

Chromium Dioxide Tape whose coating is of chromium dioxide particles. Noted for its superior frequency output.

Chronic Service Deficiency When you work a delay with a service provider — a telephone or data carrier, you need to create certain definitions of service so that you can figure penalties if such levels of service are not maintained. For example, we might define service deficiency as being a service outage lasting for more than ten seconds. We might define Repeated Service Deficiency as a service deficiency that occurs at least four times in any given 30 day period. and we might define Chronic Service Deficiency as a service deficiency that occurs more than ten times in any given 30 day period. Of course, how these terms are defined will depend on the SLA — Service Level Agreement — which you sign with your carrier.

CHS Cylinder-Head Sector. The method of identifying a given location on a hard drive used by the original PC-AT BIOS (INT 13) and original IDE specification. Differences between details of the two methods resulted in the 528 MB limit on IDE drives. Enhanced IDE-compliant BIOSes can translate between the two methods, allowing drive sizes up to 8.4 GB. See Enhanced IDE and IDE.

Chuck Hole Also known as Pot Hole. Slang for when your system hangs up on-line.

Churn Cellular phone and beeper users drop their monthly subscriptions often. Long distance users change their preferred carrier as often as they change their underwear. DSL customers switch to cable modem providers. The industry calls this phenomenon "churn." And it's very expensive. Churn is defined as the level of disconnects from service relative to the total subscriber base of the system. Often referred to on a percentage basis monthly, quarterly or annually. Sometimes it's as high as 2% or 3% or even 4% a month. It drives the cellular, beeper and long distance business nuts. It's very expensive to sign up a new customer. Many cell, beeper and long distance companies offer incentives to prospective customers to switch their service. Sometimes you have to stay a customer for months and months for your supplier to recoup his sign-up incentive Some users have found ways to switch their long distance service often enough so that they never pay for a long distance phone call. The only solution to "churn" is to develop a close and binding relationship with the customer. This is not easy. And most telecom companies haven't figured it.

Churn Rate Monthly cancellation rate of subscribers as a percentage of total subscribers. This is a metric used for service companies (such as cell phone companies, Internet service providers, and CLECs) as an indication of how successful they are at retaining customers.

Chutzpah Chutpah is a Jewish word that means unmitigated gall. The word is typically explained by the story of the 15-year old who goes into court having killed his father and mother and falls on the mercy of the court now that he's an orphan.

CI 1. Customer Interface.

2. Certified Integrator.

3. An ATM term. Congestion Indicator: This is a field in a RM-cell, and is used to cause the source to decrease its ACR. The source sets CI=0 when it sends an RM-cell. Setting CI=1 is typically how destinations indicate that EFCI has been received on a previous data cell.

CIBER Cellular Intercarrier Billing Exchange Record. A billing record format used between cellular carriers.

CIC 1. See Carrier Identification Code.

2. See Circuit Identification Code.

CICS Customer Information Control System. An IBM program environment designed to allow transactions entered at remote computers to be processed concurrently by a mainframe host. Also, IBM's Customer Information Control System software.

CID 1. A generic term in Britain to identify a customer identity, client identity or contract identity. It is a single record and all the fields of information associated with it; for example, name, address, phone number, contact history and so on.

2. Compatibility ID. Motorola definition.

3. Circuit Designator.

4. Caller Identification or Caller ID.

CIDB Calling Line Identification Delivery Blocking. A "feature" of central offices which lets you block the sending of your phone number to the person you're calling.

CIDCW CID on Call Waiting. See Caller ID Message Format.

CIDR Classless Inter-Domain Routing. An internetworking routing protocol. It is a way of using the existing 32-bit Internet address space more efficiently commonly used by Internet Service Providers. It allows the assignment of Class C IP addresses in multiple contiguous blocks. CIDR solved a major problem with IP address assignment. Specifically, IPv4 addresses in the Class C block were limited to 254 addresses. If a user required more than 254 addresses, the next step up the IP food chain was Class B, with 65,534 addresses. Clearly, this was wasteful, as only a few more addresses required a huge chunk of precious addresses. Although this was not an issue for the first two decades of IP, the recent popularity of the Internet (and other IP networks) quickly strained the existing IPv4 addressing scheme. The backbone routers driving much of the Internet traffic in the early 1990s had to track every Class A, B and C network, at times creating routing tables that were 10,000 entries long. The maximum theoretical routing table size is roughly set at 60,000 entries. If the Internet community didn't act fast, it was estimated that the Internet would reach maximum by 1994. CIDR came to the rescue...and will continue to do so, even with the advent of IPv6. CIDR replaces Class A, B and C addresses with a "network prefix" that indicates the number of bits used for identifying the network. Prefixes range from 13 to 27 bits, instead of the eight, 16 or 24 bits of class-based addresses. This means that address blocks can be assigned in groups as small as 32 hosts or as large as over 500,000 hosts. CIDR builds on the concept of "supernetting," with more than one block of network addresses being linked together logically into a "supernet." The problem of IP address exhaustion is similar to, but much more complex than, that of 800 numbers, which was relieved with the introduction of 888, and the 877, numbers. CIDR requires the use of routing protocols that support it, examples being RIP (Routing Information Protocol) Version 2, OSPF (Open Shortest Path First) Version 2, and BGP (Border Gateway Protocol) Version 4. See also IP, IPv4, IPv6, and TCP/IP.

CIF 1. Common Intermediate Format. An option of the ITU-T's H.261/Px64 standard for videoconferencing codes. It produces a color image of 288 non-interlaced luminance lines, each containing 352 pixels to be sent at a rate of 30 frames per second. The format uses two B channels, with voice taking 32 Kbps and the rest for video. QCIF (Quarter CIF), is a variation on the theme, requiring approximately 1/4 the bandwidth of CIF and delivering approximately 1/4 the resolution. CIF works well for large-screen videoconferencing, due to its greater resolution; QCIF works well for small-screen displays, such as videophones. QCIF is mandatory for ITU-T H.261-compliant codes, while CIF is optional. See QCIF.

2. Cost, Insurance and Freight are included. That means the seller pays the freight. The